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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/739,513	12/18/2000	Ronaldus Maria Aarts	PHN 17,814	3113

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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EXAMINER

GRIER, LAURA A

ART UNIT	PAPER NUMBER
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2644

DATE MAILED: 07/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/739,513

Applicant(s)

AARTS, RONALDUS MARIA

Examiner

Laura A Grier

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>8</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Europe on 12/24/1999. It is noted, however, that applicant has not filed a certified copy of the 99204539.3 application as required by 35 U.S.C. 119(b).

Specification

2. The abstract of the disclosure is objected to because line 1, recites "said", which is legal phraseology. Correction is required. See MPEP § 608.01(b).

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

4. The disclosure is objected to because of the following informalities: page 3, lines 5-9 comprise improper sentence set up/structure, conventional sentence/paragraph structure is suggested; and there is a lack of headings and on page 17, the words, "Fig 2" should be removed from the page.

Appropriate correction is required.

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5. Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Objections

6. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they

must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 2-8 have been renumbered 2-9.

Regarding the misnumbered claims, claim 2, starting at line 3, should be a separate claim and being numbered as no. 3.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. **Claims 1-9** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Regarding **claim 1 (dependent claims 1-9)**, the phrase "**such that**", which carries the same meaning as the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

10. **Claim 9** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. This claim is an omnibus type claim.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. **Claims 1-3, and 6 are** rejected under 35 U.S.C. 102(e) as being anticipate by Emura Akira, JP11032397.

Regarding **claims 1**, Akira discloses a spatial sound reproducing device. Akira discloses a head device, which indicates headphones with a sound sources (11R and 11L), which reads on sound generating means; adaptive filters (24R and 24L), which indicates control means, a loudspeakers (12), which reads on external sound sources, and the head device comprises microphones (13R and 13L) and the control means (adaptive filters) act control the sound reproduction of the headphone sound generating mean wherein the output of the sound sources recorded the microphones and the filters equivalent (abstract and figures 1-3), which indicates the controls means, therein as claimed.

Regarding **claim 2**, Akira discloses everything claimed as applied above (see claim 1). Akira discloses means to register regulation data of the person as supported by the adaptive receiving input signal data in respect to external sound sources (figure 1).

Regarding **claim 3**, Akira discloses everything claimed as applied above (see claim 1). Akira inherently discloses means of sound being transported to the head device as evident by the fact that headphone or head device is worn and sound is received by a listener.

Regarding **claim 6**, Akira discloses everything claimed as applied above (see claim 1). Akira inherently discloses the headphone sound generating means being a microphone as evident by the fact that the microphone records sound signal outputs.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. **Claims 4-5** are rejected under 35 U.S.C. 103(a) as being unpatentable over Akira in view of Blauert et al., U. S. Patent No. 3962543.

Regarding **claims 4**, Akira discloses everything claimed as applied above (see claim 3). However, Akira fails to specifically disclose the supporting transporting means comprise a tube. The examiner maintains that such a transporting means was well known in the art.

Regarding the sound transporting means, in a similar field of endeavor, Blauert et al. (herein, Blauert) discloses a method and arrangement for controlling acoustical output of earphones in response to rotation of listener's head. Blauert's disclosure teaches probe tube microphones (col. 6, lines 28-32), which constitutes as a sound transporting tube.

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Akira by implementing a sound transporting tube for the purpose of acquiring measurements of acoustical characteristics (transfer functions) of the listener.

Regarding **claim 5**, Akira discloses everything claimed as applied above (see claim 1). However, Akira fails to specifically disclose the microphone of the headphone set insertable into the listener's ear. Regarding the microphone of the headphone set insertable in the ear, in a

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similar field of endeavor, Blauert et al. (herein, Blauert) discloses a method and arrangement for controlling acoustical output of earphones in response to rotation of listener's head. Blauert's disclosure comprises earphones on the headset of a listener which teaches that the equipped with microphones may be inserted into the ear of the listener (abstract, col. 5, lines 19-24) or probe tube microphones may be used (col. 6, lines 28-32).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Akira by inserting the microphones integrated on a headphone into the ears of a listener for the purpose for acquiring empirical measurements of acoustical characteristics (transfer functions) of the listener.

11. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akira in view of Inanaga, et al., EP 0661906A1.

Regarding claims 7 and 8, Akira discloses everything claimed as applied above (see claim 1). However, Akira fails to specifically disclose a means of determining the position of the headphones and the a stationary element of system, and the headphones having sensors for determining the localization signals, therein. Inanaga discloses a headphone device with sensors for detecting information in respect to the turning movement (angle-wise)of a listener's head in the direction in which the signal is perceived by the listener, which provides means of determines the positon of the headphones worn by the listener and the sound sources (abstract), and determining localization.

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Akira by implementing means of determining the position

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of the headphones of the listener and the sound sources, and with the headphone comprising sensors, optimal localization of the signals can be acquired.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura A Grier whose telephone number is (703) 306-4819. The examiner can normally be reached on Monday - Friday, 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W. Isen can be reached on (703) 305-4386.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:


(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

LAG

June 25, 2003


FORESTER W. ISEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600